

palpi well developed, club-shaped, yellow with a reddish tinge, black bristly; occiput cinereous, thickly gray hairy, a bare black band extending from vertex to center, and the orbital margins with a fringe of black bristles. *Thorax* cinerous, with four black vittae, hairy and bristly, pleurae silvery; scutellum blackish at base, the apical portion broadly pale ocherous, sometimes almost wholly ocherous, with a short apical decussate pair of bristles, a sub-apical pair of macrochaetae more or less decussate and reaching the base of third abdominal segment, a discal pair, and two lateral pairs. *Abdomen* rather broad, ovate, covered with short bristles; first segment black, a little abbreviated, the other segments broadly or almost wholly silvery at base with hind borders and median vitta shining black, second segment more or less broadly reddish on sides (an immature specimen has the abdomen almost entirely pale reddish); first two segments without macrochaetae, except a lateral marginal one on second segment, but sometimes a median marginal pair also on second segment; third segment with about ten marginal, four to six of which are on upper side; anal segment armed with

marginal macrochaetae and bristles; venter largely silvery, the segments black posteriorly. *Legs* black, femora and tibiae slightly silvery, femora bristly, middle tibiae with some strong bristles, the hind tibiae ciliate on outer edge with a longer bristle beyond middle and two before tip; claws and pulvilli very long, pulvilli smoky whitish. *Wings* much longer than abdomen, rather broad, without costal spine, grayish hyaline, hardly brownish on costo-basal portion, third vein slightly spined at base; apical cell open, ending distinctly before tip of wing; fourth vein bent in a short curve, without stump or wrinkle, apical cross-vein bowed inward; hind cross-vein more or less curved, much nearer the bow of fourth vein; tegulae watery-white, halteres fuscous.

Length 8.5 to 9 mm.; of wing 7.5 to 8 mm.

Described from four specimens. Kans. This species would belong in Brauer and v. Bergenstamm's genus *Argyrophylax*, which is separated from *Masicera* almost solely on the character of the ciliate hind tibiae.

A LIST OF SOME OF THE CATALOGUES AND LOCAL LISTS OF NORTH AMERICAN COLEOPTERA.—II (H.-P.).

BY JOHN HAMILTON AND SAMUEL HENSHAW.

33 **Haldeman**, S. S. Catalogue of the carabidæ Coleoptera of southeastern Pennsylvania. (Proc. acad. nat. sci. Phil., 1843, v. 2, p. 295-298.)

210 species are listed.

34 **Harrington**, W. H. List of Ottawa Coleoptera. (Trans. Ottawa field nat. club, 1884, v. 2, p. 67-68.)

1022 species and varieties are listed; the occurrence of about 100 additional species is noted.

35 **Harrington**, W. H. Additions to Canadian lists of Coleoptera. (Can. ent., 1884, v. 16, p. 44-47; 70-73; 96-98; 117-119.)

122 species are listed; a few are not fully identified.

36 **Harrington**, W. H. On the lists of Coleoptera published by the geological survey of Canada, 1842-1888. (Can. ent., 1890, v. 22, p. 135-140; 153-160; 184-191.) Separate; 21 p.

The short lists published in the reports of the Canadian geological survey are here collated; 482 species and varieties are enumerated.

37 **Harris**, Thaddeus William. Insects. Hitchcock's Report on the geology, etc., of Massachusetts. Amherst, 1833. Second edition; Amherst, 1835. Separate; Amherst, 1835.

The Coleoptera are enumerated on p. 566-582 ed. of 1833; p. 553-575 ed. of 1835 and p. 33-55 of the separate of Edward Hitchcock's Catalogue of the animals and plants in Massachusetts: 994 species are in the list in the separate; many of these are however manuscript names.

38 **Hayward, Roland and Savage, H.** A catalogue of the Coleoptera of the Green Mountains. (Quart. Journ. Bost. zool. soc., 1883, v. 2, p. 12-15; 24-29; 36-38.)

431 species and varieties are listed from Camel's Hump and the northern range of the mountains. "*Platynus brunneomarginatus* = *P. tenuicollis*, and *Hister punctifer* and *Iloflia equina* are erroneous determinations" *R. Hayward in litt.*

39. **Henshaw, Samuel.** List of Coleoptera collected in the vicinity of Cliftondale, Mass., June 12, 1873. (*Psyche*, 1874, v. 1, p. 17-18; 22-23.)

135 species are listed.

40 **Henshaw, Samuel.** List of the Coleoptera of America, north of Mexico. Philadelphia, 1885, 2+161 p.

923 species are enumerated; includes all species described till Sept. 1885.

41 **Henshaw, Samuel.** First supplement to the list of Coleoptera of America, north of Mexico. (*Entom. amer.*, 1887, v. 2, p. 213-220.) Separate: Brooklyn, 1887, 8 p.

212 species are added; many corrections in synonymy are included; includes all species described till Jan. 1, 1887.

42. **Henshaw, Samuel.** Second supplement to the list of Coleoptera of America, north of Mexico. (*Entom. amer.*, 1889, v. 5, p. 127-138.) Separate: Brooklyn, 1886, 14 p.

303 species are added; bibliographical references to recent monographs, synopses, etc. are added.

43. **Holland, W. J.** Captures made while travelling from Winnipeg to Victoria, B. C. (*Can. ent.*, 1888, v. 20, p. 89-92.)

60 species and varieties of Coleoptera are listed.

44 **Horn, George H.** Catalogue of Coleoptera from southwestern Virginia. (*Trans. Amer. ent. soc.*, 1868, v. 2, p. 123-128.)

179 species are listed, some are not fully determined.

45. **Horn, G. H.** A list of Coleoptera collected by C. Thomas, in eastern Colorado and northeastern New Mexico, during the survey of 1869. (*Rep. U. S. geol. surv.*, [Hayden's 2d rep.], 1872, p. 469-470.)

Enumerates 123 species; 2 are not fully identified.

46 **Horn, G. H.** Coleoptera. (*Rep. U. S. geol. surv.*, [Hayden's 5th rep.] 1872, p. 382-392.)

818 species are enumerated collected in Kansas, Utah, Idaho, Montana, California, Oregon, New Mexico, Nevada and Indian Territory.

47 **Horn, G. H.** Coleoptera. (*Rep. U. S. geol. surv.*, [Hayden's 6th rep.], 1873, p. 717.)

19 species are listed from Yellowstone Lake, S from Téton Basin and 13 from Snake River.

48 **Horn, G. H.** Coleoptera. (*Rep. sea fisheries New England* [Baird's 1st rep.], 1873, p. 540-543.) (*Rep. invert. Vineyard Sound*, 1874, p. 246-249.)

17 species are listed with notes on localities.

49 **Horn, G. H.** Notes on the coleopterous fauna of Guadalupe Island. (*Trans. Amer. ent. soc.*, 1876, v. 5, p. 198-201.)

23 species are listed; 4 species are peculiar to the fauna of the island; regions of previous occurrence are given.

50 **Horn, G. H.** List of Coleoptera collected in 1875 in Colorado and Utah, by A. S. Packard, Jr., M. D. (*Rep. U. S. geol. surv.*, [Hayden's 9th rep.], 1877, p. 811-815.)

146 species are listed with localities of capture; several are not fully identified.

51 **Horn, G. H.** Coleoptera [collected in 1885, by Dr. Robert Bell, in connection with the Hudson's Bay expedition.] (*Rep. progr. Can. geol. surv.*, 1885, 1886, p. 27 DD.)

5 species are listed from Stupart's Bay, 3 from Cape Chudleigh, 3 from Cape Digges and 3 from Blanc Sablon.

52 **Howard, L. O.** A list of the invertebrate fauna of South Carolina. Separate: 47 p.

Chapter 11 of a Handbook of the state of South Carolina published in 1883 by the state: a list of the genera of the more important families of Coleoptera found in the state is given on p. 11-16; estimates that some 4000 species will probably be found by diligent collecting.

53 **Howard, L. O.** Annotated catalogue of the insects collected in 1887-88 [by the U. S. fish commission steamer Albatross.] (*Proc. U. S. nat. mus.*, 1889, v. 12, p. 185-216.)

A few species of Coleoptera from Clemente Island and from Lower California are listed on p. 186-187.

54 **Hubbard, H. G. and Schwarz, E. A.** The Coleoptera of Michigan. (*Proc. Amer. philos. soc.*, 1878, v. 17, p. 593-666.)

From the Lake Superior region 1231 species and varieties are listed; the occurrence of more than 100 additional species is indicated; from the lower peninsular of Michigan 1786 species and varieties are listed and the occurrence of about 150 additional species is noted; many new species are described by Leconte.

55 **Jones, J. Matthew.** Nova Scotian Coleoptera. Part 1. (*Trans. Nova Scotia inst. nat. sci.*, 1869, v. 2, p. 141-000.) Separate: Halifax, 1870, 15 p.

100 species are listed; very many of them are not fully identified.

56 **Kilman**, Alva H. Additions to the list of Canadian Coleoptera. (Can. ent., 1889, v. 21, p. 108-110: 134-137.)

117 species are listed with notes of capture and abundance.

57 **Kirby**, William. The insects. Richardson's Fauna Boreali-Americana. Norwich, 1837, v. 4.

343 species of Coleoptera are enumerated and described on p. 8-240; contains species collected from Nova Scotia to the Rocky Mountains and northwest to 65°. For a partial reprint of Kirby's descriptions etc. see Can. ent., v. 2-7; also in separate, London, Ontario, n. d., 146+14 p. The synonymy of the Coleoptera by G. H. Horn (Can. ent. v. 8, p. 126-130; 150-159; 166-170; 190-193) is also in the separate.

58 **Knaus**, Warren. Additions to the catalogue of Kansas Coleoptera for 1883 and 1884. (Trans. Kans. acad. sci., 1885, v. 9, p. 57-61.)

148 species and 12 varieties are listed; this raises the total number of Kansas Coleoptera to 2059 species and varieties.

59 **Knaus**, Warren. Additions for 1885 and 1886 to the list of Kansas Coleoptera. (Trans. Kans. acad. sci., 1887, v. 10, p. 86-88.)

60 species and 1 variety are listed; the total number of Coleoptera from Kansas is now about 2115.

60 **Leconte**, John L. A descriptive catalogue of the geodephagous Coleoptera inhabiting the United States east of the Rocky Mountains. (Annals lyc. nat. hist. N. Y., 1848 v. 4, p. 172-474.) Separate: 144 p.

616 species are enumerated: the pages succeeding p. 233 are numbered 100 too high.

61 **Leconte**, J. L. General remarks upon the Coleoptera of Lake Superior. Agassiz's Lake Superior, Boston, 1850, p. 200-242.*

816 species are enumerated and many of them described for the first time. This collection was made from Sault de Ste. Marie, skirting the eastern and northern shores of Lake Superior and westward to Fort William on Thunder Bay.

62 **Leconte**, J. L. Descriptions of new species of Coleoptera from California. (Annals lyc. nat. hist. N. Y., 1851-52, v. 5, p. 125-216.)

Descriptions of 335 new species from California and Oregon; a few species from other parts of the United States are described in the foot notes.

63 **Leconte**, J. L. Report upon insects collected on the survey. (Rep. expl. and surv. from Miss. river to the Pacific ocean, 1857, v. 12, pt. 3, p. 1-72.) Separate: 72 p.

1173 species of Coleoptera are listed from California, Oregon, Washington and Alaska; a few undetermined species are noted; contains remarks on distribution and the following tables, **1**, genera common to the eastern and western continents; **2**, genera peculiar to America; **3**, species common to the Atlantic and Pacific slopes of the continent; **4**, species found in Russian America and in the eastern continent, not introduced and not found in Atlantic America.

64 **Leconte**, J. L. Catalogue of Coleoptera of the region adjacent to the boundary line between the United States and Mexico. (Journ. acad. nat. sci. Phil., 1858, ser. 2, v. 4, p. 9-42.)

993 determined species are listed from Texas, Kansas, Colorado, Arizona, Frontera, Mexico, California, and Lake Superior; the occurrence of 11 additional species is noted; contains the following tables, **1**, distribution of genera across the continent; **2**, species extending across the continent; **3**, genera common to the eastern and western continents; **4**, genera peculiar to America.

65 **Leconte**, J. L. Descriptions of new species of Coleoptera, chiefly collected by the United States and Mexican boundary commission, under Major W. H. Emory, U. S. A. (Proc. acad. nat. sci. Phil., 1858, p. 59-89.)

Describes 147 new species from Texas, Sonora and California.

66 **Leconte**, J. L. Catalogue of the Coleoptera of Fort Tejon, California. (Proc. acad. nat. sci. Phil., 1859, p. 69-90.)

147 species are listed; 44 species from the Pacific coast are added as a supplement.

67 **Leconte**, J. L. Additions to the coleopterous fauna of northern California and Oregon. (Proc. acad. nat. sci. Phil., 1859, p. 281-292.)

116 species are listed.

68 **Leconte**, J. L. The Coleoptera of Kansas and eastern New Mexico. (Smithsonian contr. knowl., 1859, v. 11, 6+58 p.) Separate: N. Y., 1860, 6+58 p.

Enumerates 939 species from Kansas and Nebraska and 227 from eastern New Mexico; many of these are not fully identified; contains a map of the entomological provinces of North America.

69 **Leconte**, J. L. Notes on Coleoptera found at Fort Simpson, Mackenzie river, with remarks on northern species. (Proc. acad. nat. sci. Phil., 1860, p. 315-321.)

25 species are listed from Ft. Simpson, followed by notes and descriptions of species from Russian America, Saskatchewan and Oregon.

70 **Leconte**, J. L. Notes on the coleopterous fauna of Lower California. (Proc. acad. nat. sci. Phil., 1861, p. 335-338.)

Notes the occurrence of more than 500 species in Lower California; relations between the fauna of Lower California and that of California, Arizona, New Mexico and Texas.

71 **Leconte**, J. L. New species of Coleoptera inhabiting the Pacific district of the United States. (Proc. acad. nat. sci. Phil., 1861, p. 338-359.)

Describes 66 new species from California, Oregon, Washington, Utah, New Mexico and Kansas.

72 Leconte, J. L. List of the Coleoptera of North America. Part I. (Smithsonian misc. coll., 1863-1866. v. 6, 78 p.) Separate: Washington, 1863-1866, 78 p.

Enumerates 5422 species and 50 races; gives full synonymy.

73 Leconte, J. L. List of the Coleoptera collected in the mountains of Lycoming county, Pa. (Proc. acad. nat. sci. Phil., 1866, p. 347-348.)

151 species are listed; several are not fully identified.

74 Leconte, J. L. List of Coleoptera collected near Fort Whipple, Arizona. by Dr. Elliott Coues, U. S. A., in 1864-65. (Proc. acad. nat. sci. Phil., 1866, p. 348-349.)

88 species are listed; several are not fully identified.

75 Leconte, J. L. List of Coleoptera collected in Vancouver's Island by Henry and Joseph Matthews, with descriptions of some new species. (Annals and mag. nat. hist., 1869, ser. 4. v. 4. p. 369-385.)

186 species are listed.

76 Leconte, J. L. New species of Coleoptera collected by the expeditions for geographical surveys west of one hundredth meridian in charge of Lieut. Geo. M. Wheeler, United States engineers. (Annual rep. chief engineers for 1876, pt. 3. p. 516-520.) (Appendix JJ annual rep. chief engineers for 1876, 1876. p. 296-300.)

Appended to the descriptions are lists of **1**, California Coleoptera, 76 species with localities. **2**, Coleoptera of southern Colorado and northern New Mexico, 224 species.

77 Leconte, J. L. List of Coleoptera. (Rep. progr. Can. geol. surv., 1875-76. 1877, p. 107-109.)

List of 145 determined and 11 undetermined species collected in British Columbia.

78 Leconte, J. L. The Coleoptera of the alpine regions of the Rocky Mountains. (Bull. U. S. geol. and geog. surv., 1878, v. 4, p. 447-480.)

222 species and varieties collected in the Rocky Mountains of Colorado, Wyoming and Utah, at an elevation of 6000 feet and upwards are listed with localities of capture; 30 species are listed as peculiar to the Rocky mountain region and 154 species collected at Atlanta, Idaho (7500') are enumerated; a few of the species are not fully identified.

79 Leconte, J. L. The Coleoptera of the alpine Rocky Mountain regions.—Part II. (Bull. U. S. geol. and geog. surv., 1879, v. 5, p. 499-520.)

659 species and varieties are listed some of which are not fully identified; all were collected in Colorado, Wyoming and Idaho at an elevation of 6000 feet and upward.

80 Leconte, J. L. List of Coleoptera collected by Dr. R. Bell in 1879 on the Nelson and Churchill rivers. (Rep. progr. geol. surv. Can. 1878-79, 1880, p. 65c-66c.)

36 determined and 2 undetermined species are listed.

81 Leconte, J. L. List of Coleoptera collected in 1880 in Manitoba and between Lake Winnipeg and Hudson's Bay. (Rep. progr. geol. surv. Can. 1878-80, 1881, p. 70c-74c.)

Contains the following lists: **1**, from York Factory Hudson's Bay, 23 determined and 4 undetermined species; **2**, from Norway House to Oxford House, 39 determined and 2 undetermined species; **3**, from Lower Fort Garry, Manitoba, 38 determined species; and **4**, from Cross Lake, Nelson River, 35 determined and 1 undetermined species.

82 Leconte, J. L. List of Coleoptera collected in 1881 by Dr. Bell and others in the Lake Superior district and in the north-west territories, east of the 112th meridian and south of the 60th parallel. (Rep. progr. geol. surv. Can., 1880-81-82, 1883, p. 29c-39c.)

Contains the following lists: **1**, from Sault Ste. Marie, between Lakes Huron and Superior, Lat. 46° 31', Long. 84° 20', 96 species; **2**, from mouth of Michipicoten River, Lake Superior, Lat. 47° 56', Long. 84° 51', 9 species; **3**, from head waters of the Michipicoten River, Lake Superior, Lat. 48° 30', Long. 84° 00' to Lat. 48° 30', Long. 84° 10', 28 species; **4**, from Missinaihi House, north-east of Lake Superior, to Flying Post, Lat. 48° 29', Long. 83° 35' to Lat. 48° 02', Long. 82° 20', 18 determined and 2 undetermined species; **5**, from Oba and Kabuiakagami lakes and rivers, northeast of Lake Superior, Lat. 48° 30', Long. 84° 27' to Lat. 49° 45', Long. 83° 45', 43 species; **6**, from Thunder Bay to Lake-of-the-Woods, west of Lake Superior, Lat. 48° 25', Long. 89° 10', to Lat. 49° 25', Long. 95° 00', 23 species; **7**, from Oxford House, between Lake Winnipeg and Hudson's Bay, Lat. 54° 53' Long. 95° 44', 67 determined and 2 undetermined species; **8**, from Nelson River, near Churchill River, Lat. 55° 50', Long. 99° 30', 51 species; **9**, from Cross Lake, on the Nelson River, to Cumberland House on the Saskatchewan, Lat. 54° 40', Long. 98° 00', to Lat. 54° 00', Long. 102° 22', 10 species; **10**, from Cumberland House to Reindeer Lake, Lat. 54° 00', Long. 102° 22' to Lat. 58° 30', Long. 101° 00', 19 species; and **11**, from the north end of Reindeer Lake to the west end of Athabaska Lake, Lat. 58° 30', Long. 101° 00' to Lat. 58° 30', Long. 101° 00', 8 species.

83 Lugger, Otto. List of Coleoptera found in the vicinity of Baltimore. (Johns Hopkins Univ. circ., 1884, v. 3, no. 30, p. 78-79.)

Abstract; number of families (71) genera (837) and species (2259) found in the vicinity of Baltimore, Md.

84 von Mannerheim, Carl Gustav, Graf. Beitrag zur kaefer-fauna der Aleutischen Inseln, der Insel Sitkha und Neu-Californiens. (Bull. soc. imp. nat. Mosc., 1843, v. 16, p. 175-314.) Separate: 142 p.

Enumerates and describes 300 species from California and the Alaskan Islands; many of the species are described as new.

85 **von Mannerheim**, Carl Gustav, Graf. Nachtrag zur kaefer-fauna der Aleutischen Inseln und der Insel Sitkha. (Bull. soc. imp. nat. Mosc., 1846, v. 19, p. 501-516.) Separate: 16 p.

Enumerates and describes 16 species.

86 **von Mannerheim**, Carl Gustav, Graf. Zweiter nachtrag zur kaefer-fauna der Nord-Amerikanischen laender des Russischen Reiches. (Bull. soc. imp. nat. Mosc., 1852, v. 25, p. 283-387.) Separate: 107 p.

Enumerates and describes 180 species; also lists the Russian American species of this and previous contributions; excluding the species from California the Alaskan species number 332.

87 **von Mannerheim**, Carl Gustav, Graf. Dritter nachtrag zur kaefer-fauna der Nord-Amerikanischen laender des Russischen Reiches. (Bull. soc. imp. nat. Mosc., 1853, v. 26, p. 95-273.) Separate: 184 p.

Enumerates and describes 265 species; many of these were enumerated in preceding contributions; eliminating these the number of Alaskan species is 540 according to Mannerheim.

88 **Melsheimer**, Friedrich Ernst. Catalogue of the described Coleoptera of the United States. Washington, July 1853, xvi + 174 p.

Revised by Drs. S. S. Haldeman and J. L. Leconte; published by the Smithsonian Institution; 4750 species are enumerated; contains all the Coleoptera known till Jan. 1, 1853 with the bibliography and considerable synonymy.

89 **Melsheimer**, F. V. A | catalogue | of | insects | of | Pennsylvania | By Fred. Val. Melsheimer | Minister of the gospel. | Part first | Hanover, York County: | Printed for the author, by W. D. Lepper. | 1806. | vi + 60 p.

1303 species (all Coleoptera) are enumerated; many of the names are catalogue names. This is the first list of American Coleoptera and is extremely rare.

90 **Osborn**, Herbert and **Wickham**, H. F. Fragment of a catalogue of the Coleoptera of Iowa. Abstract. (Proc. Iowa acad. sci., for 1887-9. 1890, p. 44.)

239 species are mentioned as included in "the fragment."

91 **Packard**, A. S., Jr. List of Coleoptera collected by A. S. Packard, jun., at Caribou Island, Labrador, Straits of Belle Isle. (Can. ent., 1870, v. 2, p. 119.)

20 determined and 5 undetermined species are listed.

92 **Packard**, A. S., Jr. List of Coleoptera collected in Labrador. (4th ann. rep. trustees Peab. acad. sci., 1872, p. 92-94.) Separate: 3 p.

46 determined and 11 undetermined species are listed with localities; the collection was made along the coast of Labrador from Caribou Island to Hopedale.

93 **Packard**, A. S. List of the spiders, myriopods and insects of Labrador. (Can. ent., 1888, v. 20, p. 141-149.)

54 determined and 9 undetermined species of Coleoptera are listed with localities of capture.

94 **Pettit**, J. List of Coleoptera taken at Grimsby, Ontario. (Can. ent., 1869, v. 1, p. 106-107; v. 2, p. 7: 17-18; 1870, p. 53-54; 65-66; 84-86; 102-103; 117-118; 131-133; 151: 1871, v. 3, p. 105-107; 1872, v. 4, p. 12-14.)

1225 species are listed; a few of the weevils are not fully identified.

95 **Pettit**, J. Coleoptera taken at Grimsby. (Can. ent., 1872, v. 4, p. 98-99.)

65 species are added to the previous list.

96 **Popenoe**, Edwin A. A list of Kansas Coleoptera. (Trans. Kans. acad. sci., 1877, v. 5, p. 21-40.)

1179 species and 30 varieties are listed; about 75 undetermined species are indicated as occurring in the state.

97 **Popenoe**, E. A. Additions to the catalogue of Kansas Coleoptera. (Trans. Kans. acad. sci., 1878, v. 6, p. 77-86.)

435 species and varieties are enumerated; some are not fully identified.

98 **Provancher**, L. Liste des coléoptères pris à Portneuf, Québec. (Le nat. canad., 1869, v. 1, p. 232; 255-256; 279-280; v. 2, p. 12; 1870, p. 60-61; 118; 178-179; 249; 271-272; 343; 367-369; v. 3, p. 25-26; 1871, p. 57-59.)

699 species are listed.

99 **Putnam**, J. D. List of Coleoptera found in the vicinity of Davenport, Iowa. (Proc. Davenport acad. nat. sci., 1876, v. 1, p. 169-173.)

222 determined and 3 undetermined species are listed.

100 **Putnam**, J. D. Coleoptera collected at Monticello, Iowa, June 12th, 1872. (Proc. Davenport acad. nat. sci., 1876, v. 1, p. 173.)

A list of 34 determined and 3 undetermined species.

101 **Putnam**, J. D. Coleoptera collected near Frederic, Monroe Co., Iowa, August, 1869. (Proc. Davenport acad. nat. sci., 1876, v. 1, p. 173.)

A list of 19 species.

102 **Putnam**, J. D. List of Coleoptera collected in the Rocky Mountains of Colorado, in 1872. (Proc. Davenport acad. nat. sci., 1876, v. 1, p. 177-182.)

236 determined and 24 undetermined species are listed.

103 Putnam, J. D. Report on the insects collected by Captain Jones's expedition to northwestern Wyoming in 1873. (Proc. Davenp. acad. nat. sci., 1876. v. 1, p. 187-191.)

41 identified and 1 unidentified species of Coleoptera are listed from Green River Basin; Fort Bridger; 38 identified and 2 unidentified from Wind River Basin; Stinkingwater River; and 21 species from Yellowstone National Park.

104 Putnam, J. D. Report on the insects collected in the vicinity of Spring Lake Villa, Utah Co., Utah, during the summer of 1875. (Proc. Davenp. acad. nat. sci., 1876. v. 1, p. 193-205.)

From the Mount Nebo alpine region 52 determined and 3 undetermined species of Coleoptera are listed; from Salt mud flat near Utah Lake 35 determined and 1 undetermined and from the Sage brush region 105 determined and 7 undetermined.

HETEROPACHA RILEYANA.

BY CAROLINE G. SOULE, BROOKLINE, MASS.

Eggs laid July 1, 1891, at Columbus, Ohio.

Eggs globular, opaque white mottled with dark green, a dot of green on top.

July 11, 1.30 P.M., they hatched.

Young larvae 1-8 inch long. Head very large, round, horn-colored mottled with brown. Body gray, striped longitudinally with dark brown on each side of the dorsum. 11th segment black on top. Body covered with short, gray hairs. Feet and props gray. Anal prolegs very slender and spread far apart. The body tapered from head to anal end. The larvae moved very fast, and were flat instead of cylindrical.

Three days later they had changed somewhat in color, the head being dull white barred with brown; the body dull white on dorsum with a black dorsal line, and a black dash on each side of this line. From each dash arose a small, dark wart with short spreading hairs. The sides were dark gray with a dull white line from 5th segment to anal prolegs. The hairs were most abundant over the head and feet, and were grayish. Each segment had a few warts, with sparse short hairs.

July 16. *First moult.* Head darker, hairy, mottled with white, the dark and white lines extending back over the first segment, the body, as before, giving the effect of black and white stripes. The tapering from head to

anus was very noticeable, as was the flat, leech-like shape. The hairs were long over the feet, shorter along the stigmatal line, and very short on the sides and dorsum.

July 19. *Second moult.* Length 1-2 inch. Head dark barred with white hairs. Body tan-colored on dorsum with two black dashes on each segment. Lateral and stigmatal lines nearly black. A black patch on top of the 11th segment. Feet and props dark gray. Hairs sparse and short except over feet and prolegs, where they seemed to "fringe" the whole edge of the larva.

July 23. *Third moult.* Length one inch or a trifle less. Head black with two short yellow lines on top, and a yellow spot near the mouth, hairy. Body brown on dorsum, yellow between the segments, with black dashes. Two yellow dashes on 12th segment. No black patch on 11th segment. Lateral and stigmatal lines of black and pale brown. Feet and prolegs dark, overhung by long gray hairs in tufts. Very short hairs on the dorsum, and very sparse.

July 27th. *Fourth moult.* 1 1-2 inches long. Head as before. The body was marked with brown, black, tan, and yellow or white, in a sort of "oil-cloth pattern" very difficult to describe, and varying with individuals. The dorsal hairs were unnoticeable without a lens, but the stigmatal fringe